List of the Claims:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

The claims have not been amended. The following list of claims, rather, is presented for the convenience of the reader.

1-16 (cancelled)

17. (previously presented) A method for controlling uplink access transmissions in a radio communication system, comprising:

determining a random delay time for user equipment to transmit a signal on an uplink access channel based upon a probability distribution that increases in density with increasing delay, the random delay time being determined by the user equipment.

18. (previously presented) The method according to claim 17, wherein

the delay time is determined upon receipt of a request for uplink access transmissions from a base station.

19. (previously presented) The method according to claim 18, wherein

the base station transmits the request on a paging channel or on a control channel.

20. (previously presented) The method according to claim 17, wherein

the signal for which the delay time is determined is a response signal transmitted by the user equipment on a contention based common uplink access channel.

21. (previously presented) The method according to claim 17, wherein

the probability distribution is determined according to:

$$p(t) = x \bullet e^{xt} /(e^{xT} - 1) \quad for \quad t \in [0,T]$$

wherein p(t) denotes a probability that a delay time t is selected, T denotes a predetermined maximum delay time, and x is a parameter that controls a rate of change of probability with time.

22. (previously presented) The method according to 17, wherein

the probability distribution is determined according to:

$$p(j) = q^{n-j} \bullet (1-q)/(1-q^{n}) \quad for\, j \in [0,n]$$

wherein n is the number of sub-intervals in a predetermined time interval T, P(j) denotes a probability that sub-interval j is selected, and q is a parameter that controls a rate of change of probability within a sub-interval.

23. (previously presented) The method according to claim 17, wherein

the probability distribution is determined according to:

$$P(j) = (q^{n-j} - q^{n})/(1-q^{n}) \quad for\, j \in [1,n]$$

wherein n is the number of sub-intervals in a predetermined time interval T, P(j) denotes a probability that sub-interval j is selected, and q is a parameter that controls a rate of change of probability within a sub-interval.

24. (previously presented) The method according to claim 21, wherein

T and x are signalled to the user equipment.

25. (previously presented) The method according to claim 24, wherein

T and x are transmitted together with a request for the delay time from the base station.

26. (previously presented) The method according to claim 17, wherein

a base station associated with a communication network issues a request,

after the delay time, the user equipment performs an uplink access transmission as a response to the request,

the network determines if the number of user equipments responding to the request exceeds a predetermined threshold, and

the network signals to the user equipments to terminate further uplink access transmissions if the threshold is exceeded.

27. (previously presented) The method according to claim 26, wherein

to signal the user equipments to terminate further uplink transmissions, the network transmits a dedicated termination signal to the user equipments, or signals an allocation of resources that implicitly indicates termination is required.

28. (previously presented) The method according to claim 26, wherein

dependent on the number of user equipments responding to the request, the network either assigns common resources for at least a plurality of the user equipments or assigns individual resources for each user equipment.

29. (previously presented) The method according to claim 19, wherein

the signal for which the delay time is determined is a response signal transmitted by the user equipment on a contention based common uplink access channel.

30. (previously presented) The method according to claim 17, wherein

the probability distribution is determined according to:

$$p(t) = x \bullet e^{xt} / (e^{xT} - 1) \quad for \quad t \in [0, T]$$

wherein p(t) denotes a probability that a delay time t is selected, T denotes a predetermined maximum delay time, and x is a parameter that controls a rate of change of probability with time.

31. (previously presented) The method according to 30, wherein

the probability distribution is determined according to:

$$p(j) = q^{n-j} \bullet (1-q)/(1-q^{n}) \quad for\, j \in [0, n]$$

wherein n is the number of sub-intervals in a predetermined time interval T, P(j) denotes a probability that sub-interval j is selected, and q is a parameter that controls a rate of change of probability within a sub-interval.

32. (previously presented) The method according to claim 30, wherein

the probability distribution is determined according to:

$$P(j) = (q^{n-j} - q^{n})/(1 - q^{n}) \quad for\, j \in [1,n]$$

wherein n is the number of sub-intervals in a predetermined time interval T, P(j) denotes a probability that sub-interval j is selected, and q is a parameter that controls a rate of change of probability within a sub-interval.

33. (previously presented) A method for controlling uplink access transmissions in a radio communication system, comprising:

using downlink signalling from a base station of the radio communication system to transmit time variable information to user equipments located in an area covered by the base station,

using the time variable information to determine delay times for transmitting signals on an uplink access channel from the user equipments, the time variable information varying based upon a probability distribution which increases in density with increasing time.

34. (previously presented) The method according to claim 33, wherein

the user equipments each perform a comparison of a randomly determined number with the time variable information, and

based on the result of the comparison, each user equipment controls the transmission of said signals on the uplink access channel.

35. (previously presented) A base station of a radio communication system, comprising:

a transmitter to transmit a time variable information in downlink to user equipments located in an area covered by the base station, wherein the information is used in the user equipments to determine delay times for transmitting signals on an uplink access channel and wherein the information varies based upon a probability distribution which increases in density with increasing time; and

a receiver to receive the signals transmitted by the user equipments on the uplink access channel.

36. (previously presented) A user equipment of a radio communication system, comprising a calculation unit to determine a delay time for transmitting a signal on an uplink

access channel, wherein the delay time is randomly determined based upon a probability distribution that increases in density with increasing delay.

37. (previously presented) A user equipment of a radio communication system, comprising:

a receiver to receive a time variable information in downlink from a base station of the radio communication system, wherein the information is used to determine delay times for transmitting signals on an uplink access channel and wherein the information varies based upon a probability distribution which increases in density with increasing time; and

a transmitter to transmit the signals on the uplink access channel to the base station.